

## CLAIMS

What is claimed is:

1. A module for manufacturing a cured tire from a plurality of tire components; the module comprising:
  - a plurality of component appliers located at spaced locations along a predetermined path;
  - a mobile tire building trolley for movement along the predetermined path;
  - two detachable tire building drums for mounting on the movable trolley;
  - and
  - a tire curing station having one tire mold for curing the assembled tire components mounted on one of the detachable tire building drums as the other detachable tire building drum on the mobile tire building trolley is having tire components applied.
2. The module of claim 1 wherein one or more of the plurality of component appliers includes a means for forming the tire component at the location of the applier.
3. The module of claim 1 wherein the applied components include, a liner, a pair of bead cores, a ply, a pair of sidewalls, a pair of chaffers, one or more belt layers, and a tread and optionally a wedge, apex, overlay, underlay, gum strips and elastomeric inserts.
4. The module of claim 1 further comprises a means for transferring the detachable tire building drum to the tire mold.
5. The module of claim 1 wherein the means for transferring includes a means for extracting the cured tire from the mold.
6. The module of claim 1 wherein the tire curing station includes an induction curing means.

7. The module of claim 1 wherein one or more of the component appliers applies strips of elastomer on the rotating tire building drum as the trolley moves along the predetermined path.
8. The module of claim 7 wherein the plurality of component appliers includes one or more extruders to form the component as strips.
9. A module for manufacturing a cured tire from a plurality of tire components; the module comprising:
  - a plurality of component appliers located at spaced locations along a predetermined path;
  - two mobile tire building trolleys for movement along the predetermined path;
  - three detachable tire building drums for mounting on the movable trolleys;
  - a tire curing station, having a pickup and transfer means for moving the detachable building drums, a tire curing mold for receiving and curing the assembled tire components on the tire building drums, and a cured tire removal station; and
  - wherein the detachable tire building drums are transferable to and from the first trolley, second trolley and the tire curing station.
10. The module of claim 9 wherein one or more of the plurality of tire component appliers includes a means for forming the tire component at the location of the applier.
11. The module of claim 9 wherein the applied tire components include, a liner, a pair of bead cores, a ply, a pair of sidewalls, a pair of chaffers, one or more belt layers, and a tread, and optionally an apex, wedge, overlay, underlay, gum strips, and elastomeric inserts.
12. The module of claim 9 wherein the tire cure station further comprises a means for curing the assembled tire components in the tire mold.

13. The module of claim 9 wherein the means for transferring includes a means for extracting the cured tire from the mold.
14. The module of claim 9 wherein the tire curing station includes an induction curing means.
15. The module of claim 9 wherein one or more component appliers applies strips of elastomer on the rotating building drums as the first and second trolley moves along the predetermined path.
16. The module of claim 15 wherein the plurality of component appliers includes one or more extruders to form the component as strips.
17. A module for manufacturing a cured tire from a plurality of tire components; the module comprising:
  - a plurality of tire component appliers located at spaced locations along a predetermined path;
  - a tire curing station having one tire mold for curing the tire and a means for curing located between one or more component appliers along the predetermined path.
18. A method of manufacturing and curing a tire; comprises:
  - applying tire components at spaced locations along a predetermined path onto detachable tire building drums on one or more mobile tire building trolleys movable along the predetermined path;
  - placing the assembled tire components while mounted on one of the detachable building drums into a tire curing mold located along the tire and predetermined path;
  - curing the tire in the mold as the one or more trolleys with detachable building drums has tire components being applied.

19. The method of claim 18 wherein the step of applying tire components includes the step of forming one or more components at the locations where the component is applied.
20. The method of claim 19 wherein the step of forming includes the step of extruding strips of elastomeric rubber.
21. The method of claim 18 further comprises the step of:  
separating the cured tire from the detachable tire building drum after curing said tire.